SPECIAL AIRWORTHINESS INFORMATION BULLETIN

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This is information only. Recommendations aren't mandatory.

Introduction

This Special Airworthiness Information Bulletin (SAIB) advises you, owners and operators of **Sidney Conn (Balloon Works and Firefly Balloons, Inc.) model Firefly 11 hot air balloons**, of a possible problem with the air valve line to deflate the envelope upon landing, which could result in failure of the line. Firefly Balloons, Inc. has issued Service Bulletin (SB) B-32 to address the problem with air valve line on all 36 gore Firefly Balloons.

Background

A Firefly 11 hot air balloon, while operating as a commercial flight, crashed upon landing. According to the pilot, the landing and touchdown were normal until he pulled the air valve line to deflate the envelope. When he pulled on the line, it broke about six feet from the top end.

The instructions for continued airworthiness for the line in question were strictly "on condition", looking for melted outer casing or fraying. The equipment had recently had a 100-hour inspection with no indications of a problem. The broken line was inspected and none of the prescribed indications were found that would affect the airworthiness of the failed line. The operator noticed that there were puffed out spots in the outer casing or bulging of the core braid of the failed line and sent the line to Firefly for evaluation. FireFly forwarded it to the line manufacturer (Samson) for analysis.

A commercial operator recently acquired another Firefly 11 balloon less than a year old, with only 159 hours total time in service. The deflation line in this new balloon had the internal Kevlar strands coming through the outer casing and was fraying badly. Also, another operator reported experiencing similar problems in the past.

Samson's evaluation of the line indicated that the overall condition of the rope was classified as "Fair/Moderate Use." Construction of the product was verified as correct per manufacturing specifications. Samson found moderate cover abrasion throughout the line and localized melted fiber was seen at the margins of the ruptured cover. At the point of rupture, there was slight damage to the exposed area of the core braid. Stripping of the cover revealed severe abrasion damage to the Kevlar fiber in the core braid. Evaluation of the second line showed a similar level of cover wear and core-fiber deterioration.

Recommendation

Due to the potential consequences, we strongly recommend you perform the following requirements of Firefly Balloon SB B-32 specified as follows:

- In addition to the normal preflight inspection, inspect the Kevlar section of the Valve Line for knots or other irregularities by pinching the rope between thumb and fingers and running the hand down the entire length. If knots or other irregularities are discovered, replace the line before further flight. Do the inspection at annual or 100-hour Inspections.

- Replace the Kevlar section of the Valve Line, in all 36 gore Firefly Balloons after 600 hours of logged flight time, whether in free flight or tethered.

- In 36 gore Firefly Balloons having in excess of 600 hours of logged flight time, replace the Kevlar section of the Valve Line within 10 hours of receipt of this SAIB.

For Further Information Contact

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